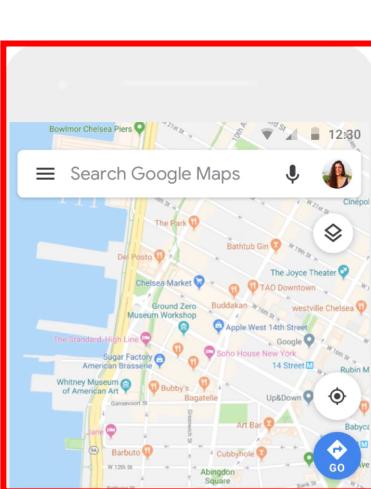


# Exhibit 8

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

Claim Element	Infringing Instrumentality																
<b>Claim 1</b> 1[pre] A mapping system for providing mapping information to a plurality of users with a plurality of computing devices over the Internet, comprising:	<p>Google has committed acts of infringement under 35 U.S.C. § 271 with its Accused Products.</p> <p>Google's Accused Products include a mapping system for providing mapping information to a plurality of users with a plurality of computing devices over the Internet. <i>See, e.g.</i>:</p> <p>Google's Accused Products include a mapping system for providing mapping information, as shown below exemplarily.</p> <div style="text-align: center;">  <p>Discover new experiences across the world or around the corner</p> <ul style="list-style-type: none"> <li>  Explore your world With the redesigned Explore tab, find places to eat and things to do around you or when you travel</li> <li>  See places you match with</li> <li>  Just for you</li> <li>  Create lists</li> </ul> <p>Explore Chelsea</p> <table border="1" style="margin-top: 10px;"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Restaurants</td> <td>Coffee</td> <td>Bars</td> <td>Events</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Attractions</td> <td>Hotels</td> <td>Parks</td> <td>More</td> </tr> </table> </div> <p>Further, Google's Accused Products provide mapping information to a plurality of users with a plurality of computing devices over the internet, as shown below exemplarily.</p>					Restaurants	Coffee	Bars	Events					Attractions	Hotels	Parks	More
Restaurants	Coffee	Bars	Events														
Attractions	Hotels	Parks	More														

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

**Google Maps**

Article Talk

From Wikipedia, the free encyclopedia

Google Maps is a web mapping platform and consumer application offered by Google. It offers satellite imagery, aerial photography, street maps, 360° interactive panoramic views of streets (Street View), real-time traffic conditions, and route planning for traveling by foot, car, bike, air (in beta) and public transportation. As of 2020, Google Maps was being used by over one billion people every month around the world.<sup>[1]</sup>

Google Maps began as a C++ desktop program developed by brothers Lars and Jens Rasmussen at Where 2 Technologies. In October 2004, the company was acquired by Google, which converted it into a web application. After additional acquisitions of a geospatial data visualization company and a real-time traffic analyzer, Google Maps was launched in February 2005.<sup>[2]</sup> The service's front end utilizes JavaScript, XML, and Ajax. Google Maps offers an API that allows maps to be embedded on third-party websites,<sup>[3]</sup> and offers a locator for businesses and other organizations in numerous countries around the world. Google Map Maker allowed users to collaboratively expand and update the service's mapping worldwide but was discontinued from March 2017. However, crowdsourced contributions to Google Maps were not discontinued as the company announced those features would be transferred to the Google Local Guides program,<sup>[4]</sup> although users that are not Local Guides can still contribute.

Google Maps' satellite view is a "top-down" or bird's-eye view; most of the high-resolution imagery of cities is aerial photography taken from aircraft flying at 800 to 1,500 feet (240 to 460 m), while most other imagery is from satellites.<sup>[5]</sup> Much of the available satellite imagery is no more than three years old and is updated on a regular basis, according to a 2011 report.<sup>[6]</sup> Google Maps previously used a variant of the Mercator projection, and therefore could not accurately show areas around the poles.<sup>[7]</sup> In August 2018, the desktop version of Google Maps was updated to show a 3D globe. It is still possible to switch back to the 2D map in the settings.

Google Maps for mobile devices were first released in 2006; the latest versions feature GPS turn-by-turn navigation along with dedicated parking assistance features. By 2013, it was found to be the world's most popular smartphone app, with over 54% of global smartphone owners using it.<sup>[8]</sup> In 2017, the app was reported to have two billion users on Android, along with several other Google services including YouTube, Chrome, Gmail, Search, and Google Play.

Read Edit View history Tools

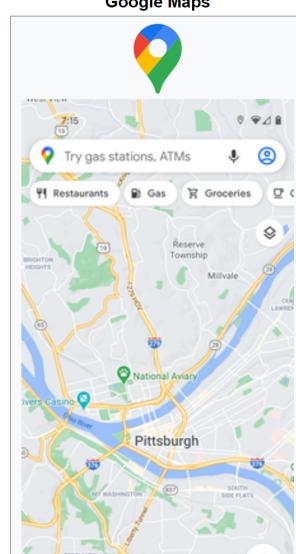
**Google Maps**



Screenshot of Google Maps in a web browser

Type of site	Web mapping
Available in	74 languages
List of languages	[show]
Owner	Google
URL	<a href="https://google.com/maps">google.com/maps</a> ↗
Commercial	Yes
Registration	Optional, included with a <a href="#">Google Account</a>
Launched	February 8, 2005, 19 years ago
Current status	Active
Written in	C++ (back-end), JavaScript, XML, Ajax (UI)

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

		<p>In November 2016, Google announced the discontinuation of Google Map Maker as of March 2017.<sup>[126]</sup></p> <p><b>Mobile app</b> [edit]</p> <p>Google Maps is available as a mobile app for the <a href="#">Android</a> and <a href="#">iOS</a> mobile operating systems. The Android app was first released in September 2008,<sup>[131][132]</sup> though the GPS-localization feature had been in testing on cellphones since 2007.<sup>[133][134][135]</sup> Up until iOS 6, the built-in maps application on the iOS operating system was powered by Google Maps.</p> <p>However, with the announcement of iOS 6 in June 2012, Apple announced that they had created their own <a href="#">Apple Maps</a> mapping service,<sup>[136]</sup> which officially replaced Google Maps when iOS 6 was released on September 19, 2012.<sup>[137]</sup> However, at launch, Apple Maps received significant criticism from users due to inaccuracies, errors and bugs.<sup>[138][139]</sup> One day later, <i>The Guardian</i> reported that Google was preparing its own Google Maps app,<sup>[140]</sup> which was released on December 12, 2012.<sup>[141][142]</sup> Within only two days, the application had been downloaded over ten million times.<sup>[143]</sup></p> <p><b>Features</b> [edit]</p> <p>The Google Maps apps for iOS and Android have many of the same features, including <a href="#">turn-by-turn navigation</a>, <a href="#">street view</a>, and public transit information.<sup>[144][145]</sup> Turn-by-turn navigation was originally announced by Google as a separate beta testing app exclusive to Android 2.0 devices in October 2009.<sup>[146][147]</sup> The original standalone iOS version did not support the iPad,<sup>[145]</sup> but tablet support was added with version 2.0 in July 2013.<sup>[148]</sup> An update in June 2012 for Android devices added support for</p> 
1[A]	<p>one or more databases storing said mapping information for displaying a map, said mapping information comprising: map layer information, points of interest information, and qualitative information related to said points of interest; and</p>	<p>Google's Accused Products comprise one or more databases storing said mapping information for displaying a map, said mapping information comprising: map layer information, points of interest information, and qualitative information related to said points of interest. <i>See, e.g.:</i></p> <p>Google's Accused Products comprise one or more databases storing mapping information for displaying a map comprising map layer information, as shown below exemplarily.</p>

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

The screenshot shows a web browser displaying the Google Maps Platform documentation. The left sidebar contains a navigation menu with sections like 'Guides', 'Reference', 'Samples', and 'Support'. Under 'Guides', the 'Map types' section is highlighted. The main content area is titled 'Basic Map Types' and describes the four types of maps available: 'roadmap', 'satellite', 'hybrid', and 'terrain'. A red box highlights this text. Below it, there is additional information about modifying the map type.

**Basic Map Types**

There are four types of maps available within the Maps JavaScript API. In addition to the familiar "painted" road map tiles, the Maps JavaScript API also supports other map types.

The following map types are available in the Maps JavaScript API:

- `roadmap` displays the default road map view. This is the default map type.
- `satellite` displays Google Earth satellite images.
- `hybrid` displays a mixture of normal and satellite views.
- `terrain` displays a physical map based on terrain information.

You modify the map type in use by the `Map` by setting its `mapTypeId` property, either within the constructor via setting its `Map options` object, or by calling the map's `setMapTypeId()` method. The `mapTypeId` property defaults to `roadmap`.

Further, the mapping information also comprise points of interest information, as shown below exemplarily.

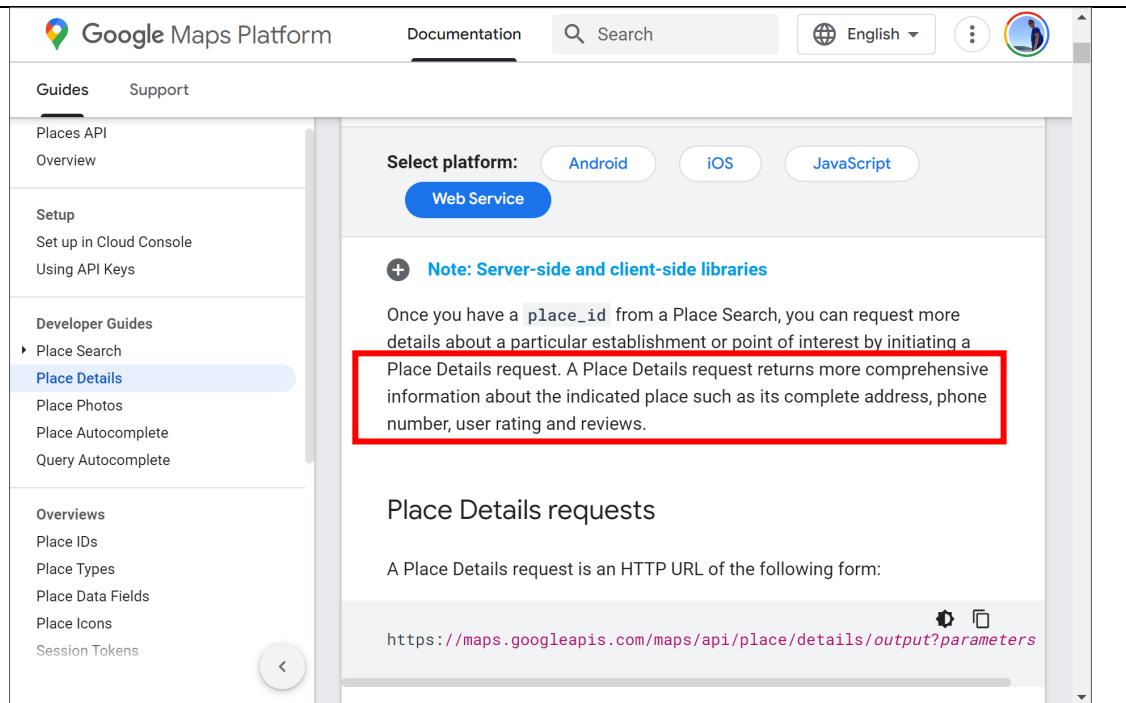
Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)

The screenshot shows the Google Maps Platform Places API Overview page. The left sidebar contains navigation links for Places API Overview, Setup, Developer Guides, Place Search (with Overview selected), Place Details, Place Photos, Place Autocomplete, Query Autocomplete, Overviews, Place IDs, Place Types, and Place Data Fields. The main content area includes a search bar, documentation links, and a note about server-side and client-side libraries. A red box highlights the note: "The Places API lets you search for place information using a variety of categories, including establishments, prominent points of interest, and geographic locations. You can search for places either by proximity or a text string. A Place Search returns a list of places along with summary information about each place; additional information is available via a [Place Details](#) query." Below this is a section titled "Compare search types" with a table comparing Find Place, Text search, Ambiguous text, Location filter, and Additional filters.

In addition, the mapping information comprise qualitative information related to the points of interest, as shown below exemplarily.

Type	Field selection	Text search	Ambiguous text	Location filter	Additional filters
Find Place	✓	✓ input	✓	✓	🚫

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

		 <p>The screenshot shows the Google Maps Platform documentation for the Places API. The left sidebar has sections like 'Places API Overview', 'Setup', 'Developer Guides', and 'Place Details' (which is selected). The main content area shows a note about 'Place Details requests' with a red box highlighting the text: 'Once you have a <code>place_id</code> from a Place Search, you can request more details about a particular establishment or point of interest by initiating a Place Details request. A Place Details request returns more comprehensive information about the indicated place such as its complete address, phone number, user rating and reviews.'</p>
1[C]	<p>at least one server storing computer instructions configured to:</p> <p>create an account on said mapping system for at least one of said plurality of users having at least one of said plurality of computing devices;</p> <p>store personalized points of interest selected by said at least one of said plurality of users;</p>	<p>Google's Accused Products comprise at least one server storing computer instructions configured to create an account on said mapping system for at least one of said plurality of users having at least one of said plurality of computing devices, store personalized points of interest selected by said at least one of said plurality of users, display said personalized points of interest within said map, import an imported address from at least one of: a customer relationship management (CRM) application; and a contact application, display said imported address on said map, store said imported address as a personalized point of interest by said at least one of said plurality of users, and allow said at least one of said plurality of users to select one of a plurality of levels of details for displaying qualitative information related to the points of interest. <i>See e.g.:</i></p> <p>Google's Accused Products comprise at least one server storing computer instructions configured to create an account on the mapping system for at least one of plurality of users having at least one of plurality of computing devices, as shown below exemplarily.</p>

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

<p>display said personalized points of interest within said map;</p> <p>import an imported address from at least one of: a customer relationship management (CRM) application; and a contact application;</p> <p>display said imported address on said map;</p> <p>store said imported address as a personalized point of interest by said at least one of said plurality of users; and</p> <p>allow said at least one of said plurality of users to select one of a plurality of levels of details for displaying qualitative information related to the points of interest;</p>	<p><b>My profile</b></p> <p>Your Maps public profile lets you showcase your photos, reviews, lists, and other Maps content. On your Maps profile, you can:</p> <ul style="list-style-type: none"><li>• Change your Google name and profile photo.</li><li>• Add a short bio to your profile.</li><li>• <a href="#">Manage your account settings and privacy controls</a>.</li><li>• Find your past contributions and posts.</li><li>• Find the views and likes on your contributions.</li><li>• Review your topic stats.</li></ul> <p>Tip: Your name, photo, and bio will always be found on your profile.</p>	
---	--	--

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

The screenshot shows a web browser window displaying the "Google Maps Help" page. The title is "Create a list of places". Below the title, a sub-section titled "Make a new list" contains five numbered steps. Step 5, "Click Save.", is highlighted with a red rectangular box. Another red box highlights the section title "Save a place to a list" below it. The page also includes a search bar at the top and navigation links for "Computer", "Android", and "iPhone & iPad". A note at the bottom states: "These stored exemplary personalized points of interest are further shown below."

Google Maps Help  Describe your issue

≡ Google Maps Help  Computer Android iPhone & iPad

Create a list of places

In Google Maps, you can create a list of places, like your favorite places or places you want to visit.

Make a new list

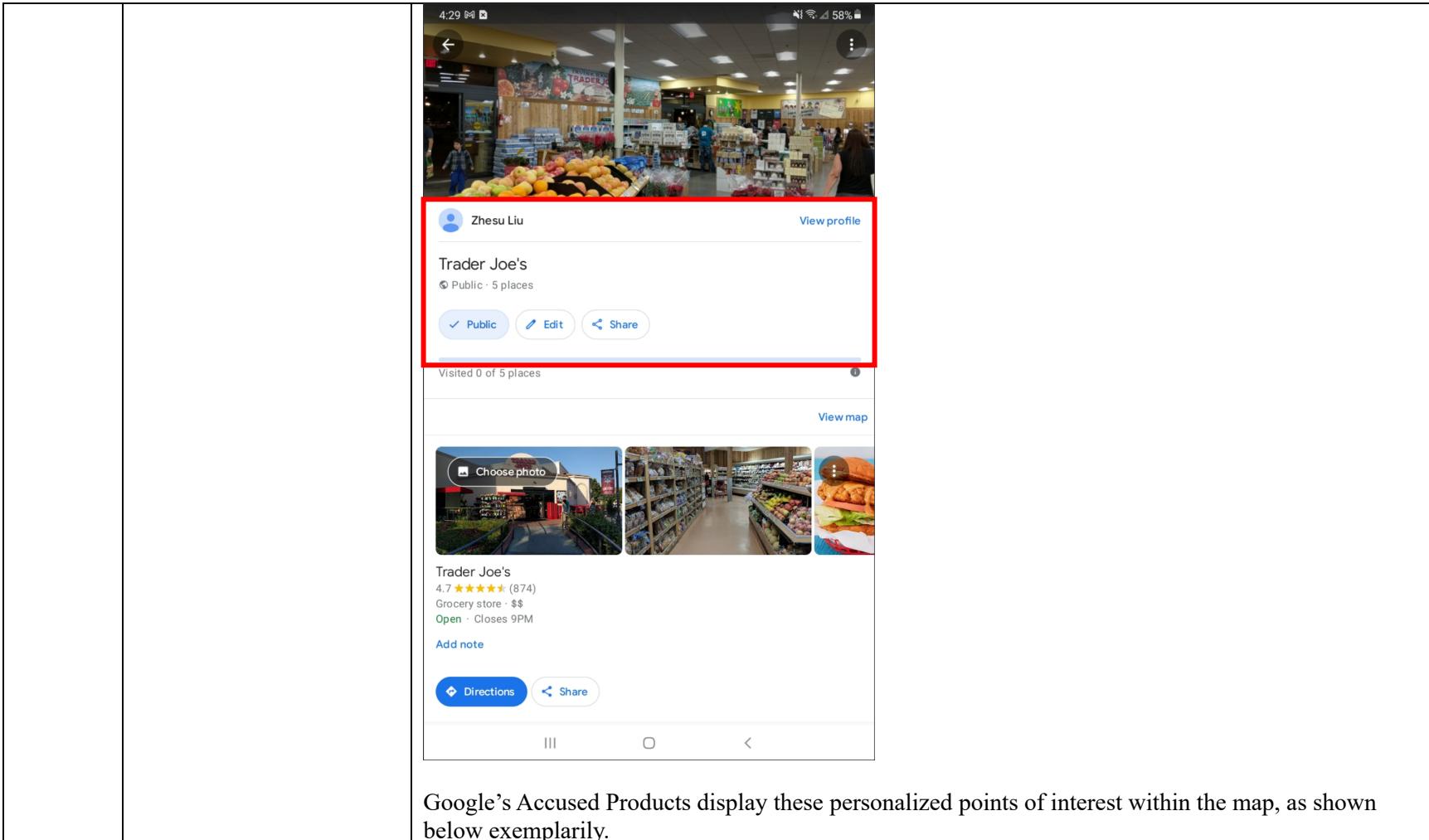
1. On your computer, open [Google Maps](#).
2. Click Menu ≡ > Your places > Saved.
3. In the bottom right, click New list +.
4. Enter a name and description.
5. Click Save.

Save a place to a list

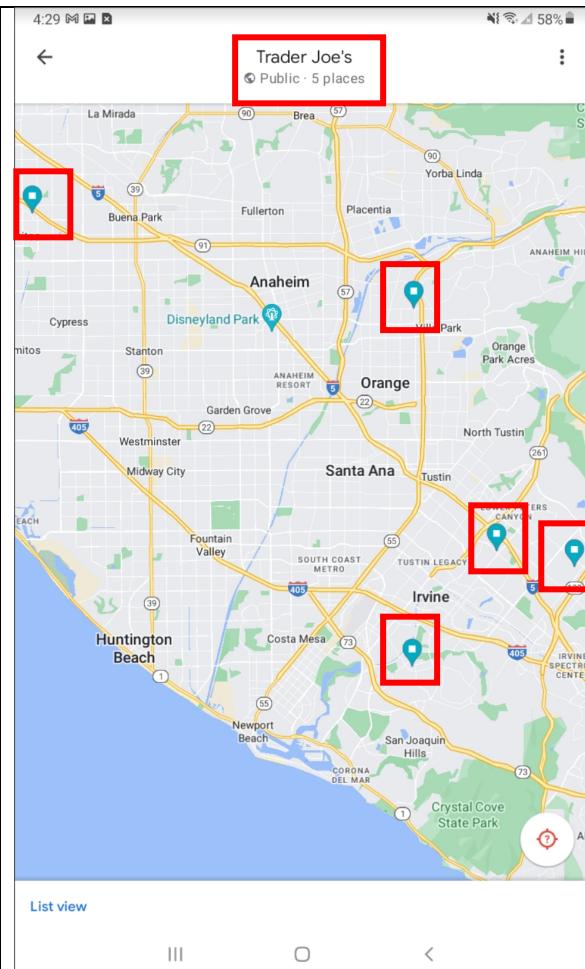
1. Search for a place or click it on the map.
2. Click Save.
3. Choose a list. To create a list, click New list +.
4. Optional: To remove a place from a list, click Saved > click the list.

These stored exemplary personalized points of interest are further shown below.

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

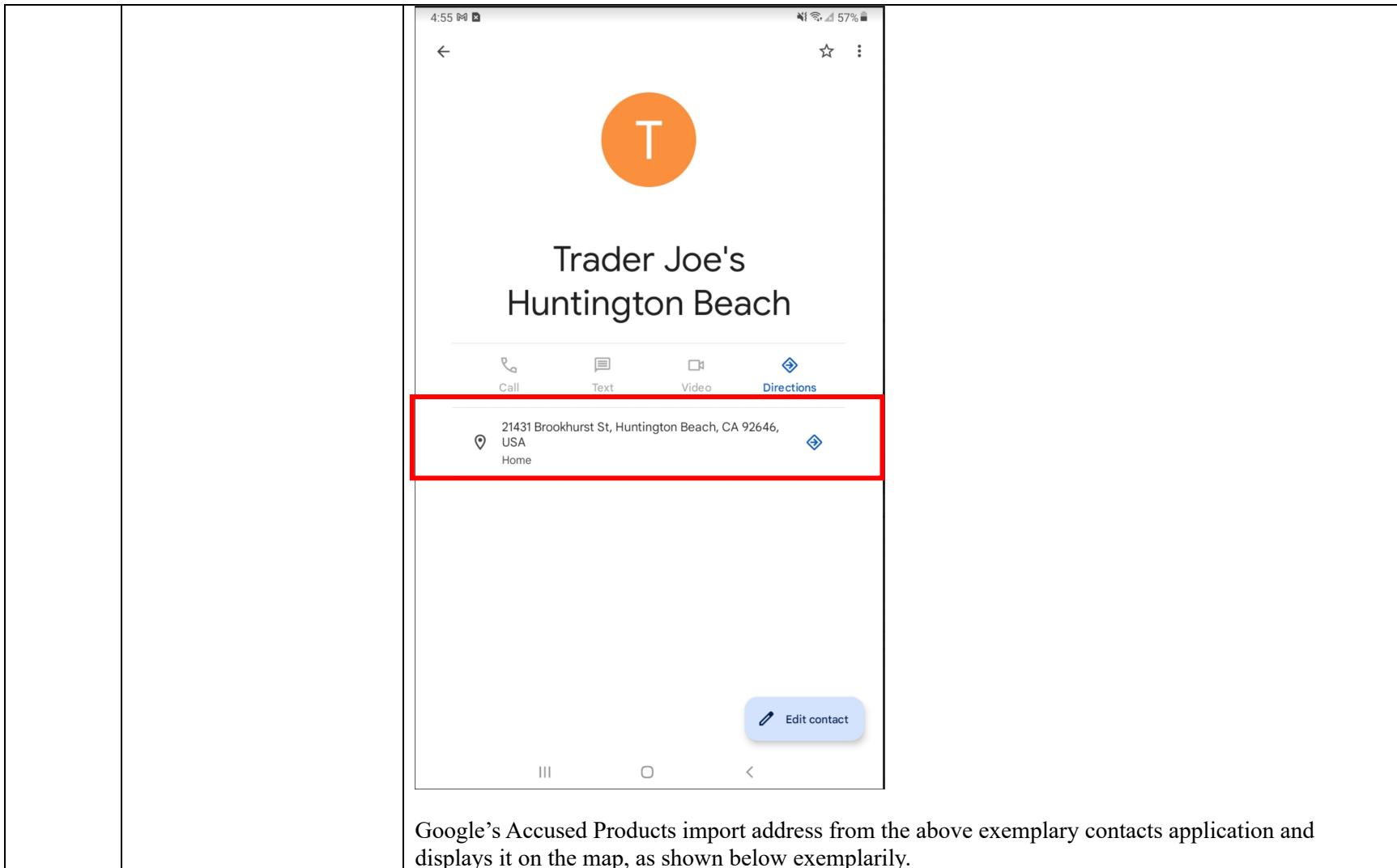


**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

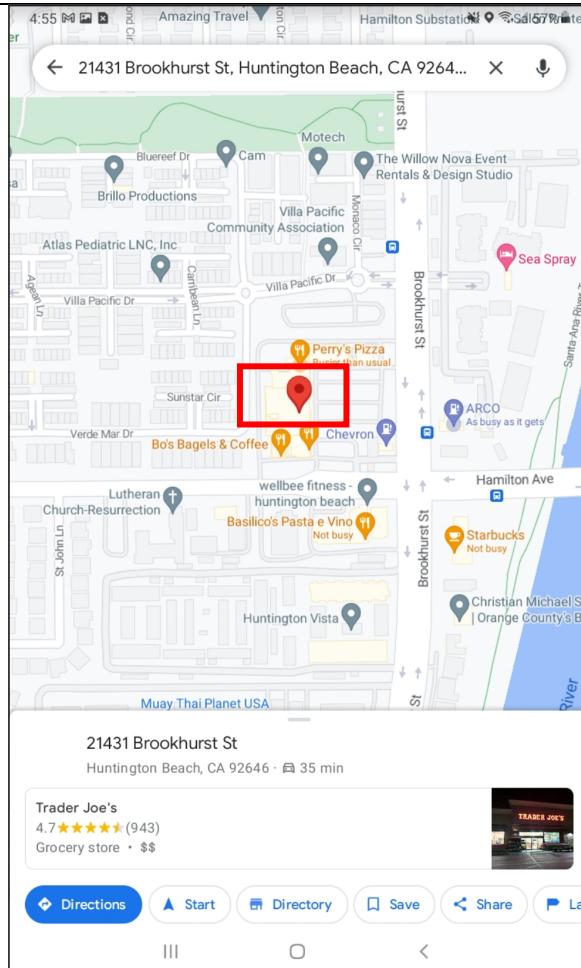


Furthermore, Google's Accused Products import an imported address from at least one of a customer relationship management application and a contacts application, as shown below exemplarily.

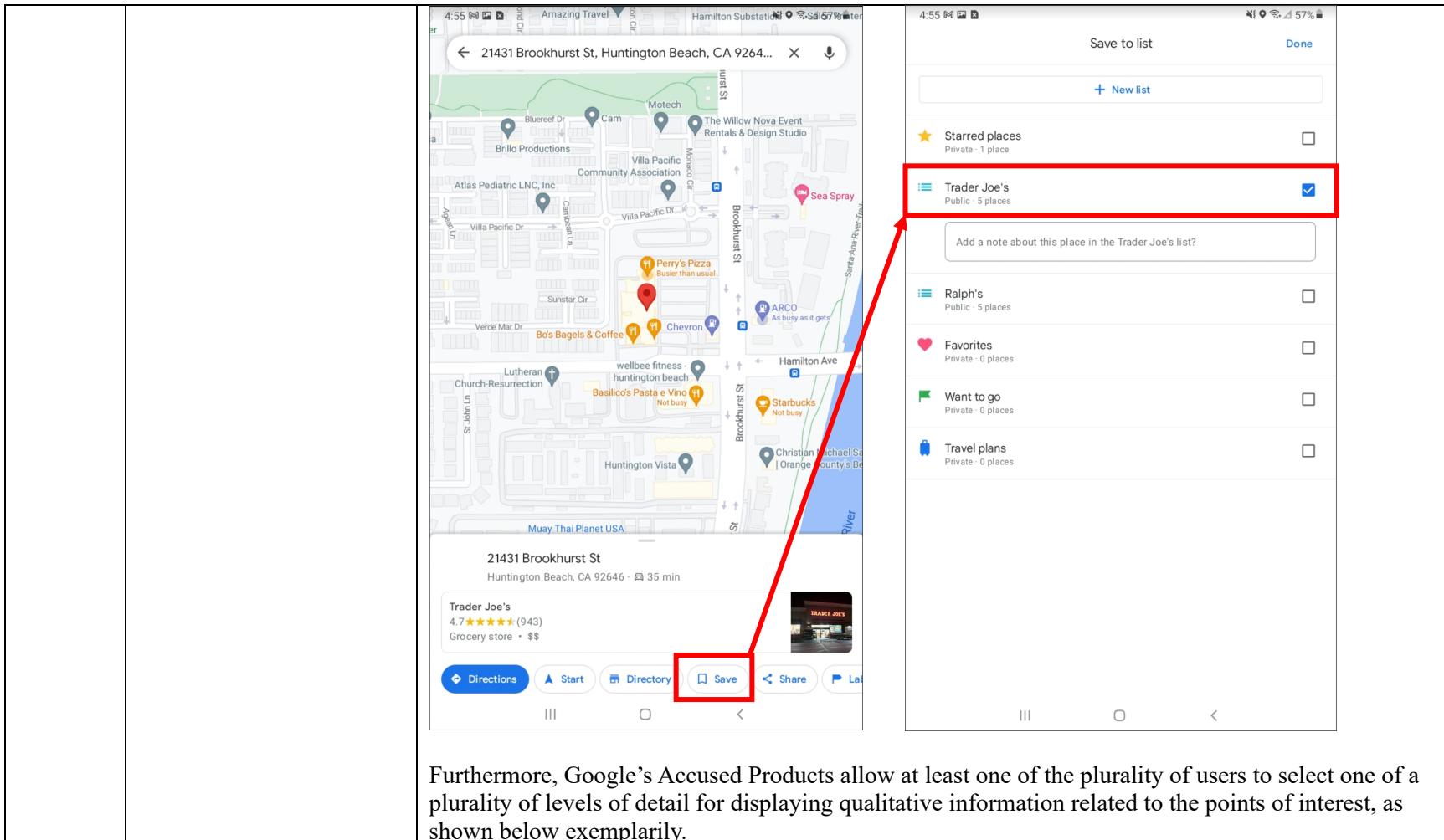
**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**



**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

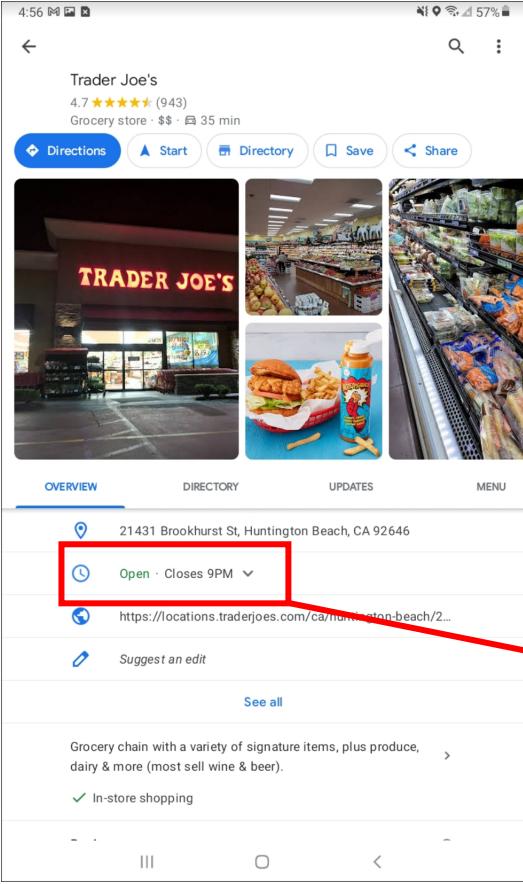
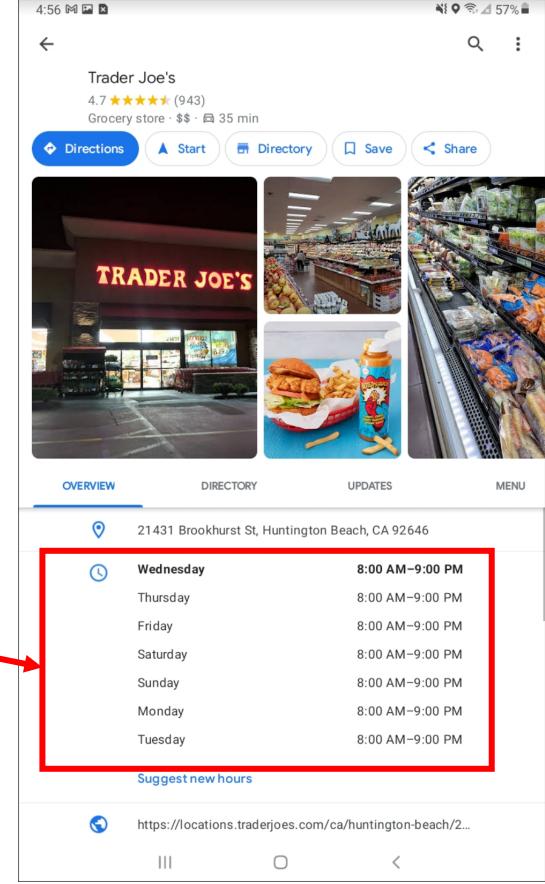


Further, Google's Accused Products store imported address as a personalized point of interest by at least one of the plurality of users, as shown below exemplarily.

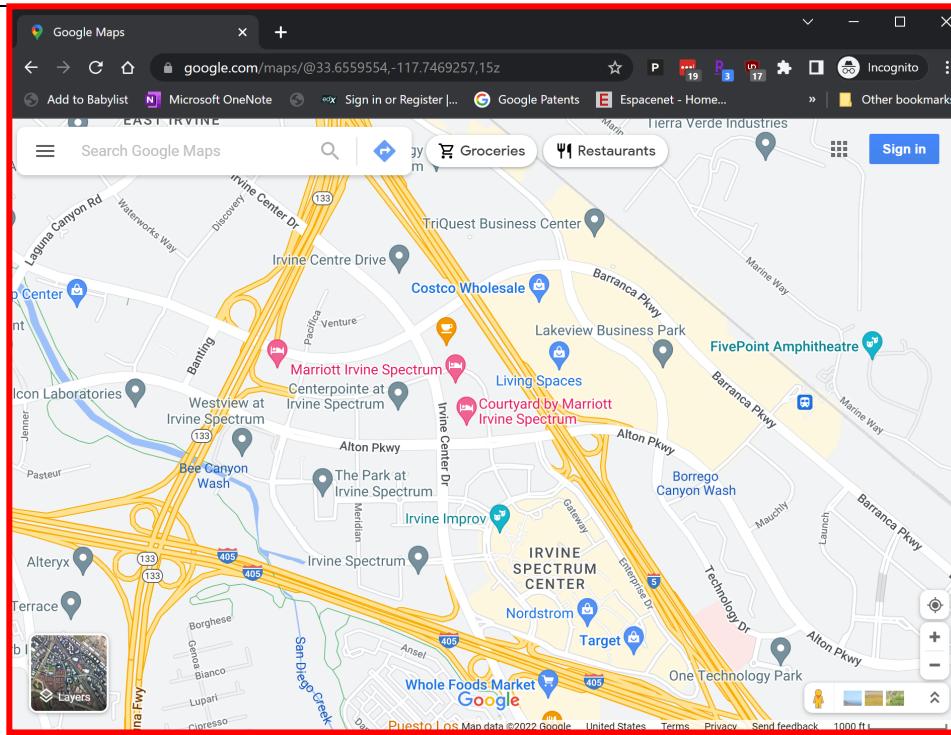
**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

Furthermore, Google's Accused Products allow at least one of the plurality of users to select one of a plurality of levels of detail for displaying qualitative information related to the points of interest, as shown below exemplarily.

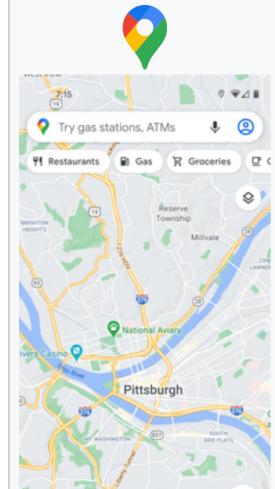
Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)

			<p>1[D] wherein said mapping information is configured to be accessible by said plurality of users with said plurality of computing devices, each of said plurality of computing devices comprising a graphical user interface (GUI) provided by an internet browser or a mapping application. <i>See e.g.:</i></p> <p>The mapping information is configured to be accessible by the plurality of users with the plurality of computing devices, each of the plurality of computing devices comprising a graphical user interface provided by an internet browser as shown below exemplarily.</p>
--	---	--	---

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

<p>user interface (GUI) provided by an internet browser or a mapping application.</p>	
<p>Further, the mapping information is configured to be accessible by the plurality of users with the plurality of computing devices, each of the plurality of computing devices comprising a graphical user interface provided by a mapping application as shown below exemplarily.</p>	

**Ex. 8 - Infringement Chart for U.S. Patent No. 11,372,903 (Claim 1)**

			<p>In November 2016, Google announced the discontinuation of Google Map Maker as of March 2017.<sup>[126]</sup></p> <p><b>Mobile app</b> [edit]</p> <p>Google Maps is available as a mobile app for the <a href="#">Android</a> and <a href="#">iOS</a> mobile operating systems. The Android app was first released in September 2008,<sup>[131][132]</sup> though the GPS-localization feature had been in testing on cellphones since 2007.<sup>[133][134][135]</sup> Up until iOS 6, the built-in maps application on the iOS operating system was powered by Google Maps. However, with the announcement of iOS 6 in June 2012, <a href="#">Apple</a> announced that they had created their own <a href="#">Apple Maps</a> mapping service,<sup>[136]</sup> which officially replaced Google Maps when iOS 6 was released on September 19, 2012.<sup>[137]</sup> However, at launch, Apple Maps received significant criticism from users due to inaccuracies, errors and bugs.<sup>[138][139]</sup> One day later, <a href="#">The Guardian</a> reported that Google was preparing its own Google Maps app,<sup>[140]</sup> which was released on December 12, 2012.<sup>[141][142]</sup> Within only two days, the application had been downloaded over ten million times.<sup>[143]</sup></p> <p><b>Features</b> [edit]</p> <p>The Google Maps apps for iOS and Android have many of the same features, including <a href="#">turn-by-turn navigation</a>, <a href="#">street view</a>, and public transit information.<sup>[144][145]</sup> Turn-by-turn navigation was originally announced by Google as a separate beta testing app exclusive to Android 2.0 devices in October 2009.<sup>[146][147]</sup> The original standalone iOS version did not support the <a href="#">iPad</a>,<sup>[145]</sup> but tablet support was added with version 2.0 in July 2013.<sup>[148]</sup> An update in June 2012 for Android devices added support for</p> 
--	--	--	--